

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Attorney Docket 14251US02

In the Application of:	)	
Bhatia	)	Electronically Filed
U.S. Serial No.: 10/606,478	)	
Filed: June 26, 2003	)	
Examiner: Rao	)	
Group Art Unit: 2621	)	

APPEAL BRIEF

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria VA 22313-1450

Sir:

This is an appeal from the Office Action made Final mailed April 15, 2009. A Notice of Appeal was filed with the United States Patent and Trademark Office on September 15, 2009, with a pre-appeal brief and a request for pre-appeal review. A pre-appeal conference was held and Appellants were advised to proceed to the BPAI on January 20, 2010.

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## **I. REAL PARTY IN INTEREST**

Broadcom Corporation, a corporation having a place of business at 16215 Alton Parkway, Irvine California 92618, has acquired the entire right, title, and interest in and to the invention, the application, and any and all patents to be obtained therefore as set forth in the assignment recorded 9/25/2003 at Reel/Frame 014002/0773.

## **II. RELATED APPEALS AND INTERFERENCES**

There are no related appeals or interferences.

## **III. STATUS OF THE CLAIMS**

Claims 1-16, 18, and 27-29 are presently pending and stand rejected. Claims 17, and 19-26 are cancelled without prejudice.

Claim 1 was rejected under 35 U.S.C. 103(a)<sup>1</sup> as anticipated by Kono in view of Aharoni and further in view of Washino.

Claims 2-7 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kono in view of Aharoni, Washino, and Wu.

Claims 8-9 were rejected under 35 U.S.C. 103(a) as anticipated by Kono in view of Aharoni and further in view of Washino.

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<sup>1</sup> The Final Office Action (FOA) of 4/15/2009 quotes 35 U.S.C. 103(a) in paragraph 5, but in the paragraph 6, states "Claims 1, 8-9, and 28-29 are rejected under 35 U.S.C. 102(e) as anticipated by Kono ... in view of Aharoni ..., and further in view of Washino...". It is believed that Examiner's intention was to make the rejection under 35 U.S.C. 103(a).

Claim 10 was rejected under 35 U.S.C. 103(a)<sup>2</sup> as anticipated by Kono in view of Aharoni and further in view of Washino.

Claim 11-16 was rejected under 35 U.S.C. 103(a) as anticipated by Kono in view of Aharoni and further in view of Washino and Wu.

Claim 17 is cancelled without prejudice.

Claim 18 was rejected under 35 U.S.C. 103(a) as anticipated by Kono in view of Aharoni and further in view of Washino.

Claims 19-26 are cancelled without prejudice.

Claims 28-29 were rejected under 35 U.S.C. 103(a) as anticipated by Kono in view of Aharoni and further in view of Washino.

The rejection of claims 1-16, 18, and 27-29 are appealed.

#### **IV. STATUS OF AMENDMENTS**

There are no amendments pending in the present application.

#### **V. SUMMARY OF CLAIMED SUBJECT MATTER**

Claim 1 is directed to a system for displaying images on a single display, said system comprising:

a decoder (Figure 1, 115) for decoding encoded images and parameters associated with the images, thereby

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<sup>2</sup> The Final Office Action of 4/15/2009 "Claims 10, and 18 remain rejected under 35 U.S.C. 102(e) as anticipated by Kono ... in view of Aharoni ..., and further in view of Washino...". It is believed that Examiner's intention was to make the rejection under 35 U.S.C. 103(a).

resulting in decoded images and decoded parameters associated with the decoded images;

a plurality of image buffers (125a) for storing the decoded images prior to display on the single display, wherein single ones of the decoded images are displayed at a time on the single display;

a plurality of parameter buffers (125b), wherein each of the plurality of parameters buffers corresponds to a particular one of the plurality of image buffers and is for storing the decoded parameters associated with the image stored in the corresponding one of the plurality of image buffers, prior to display on the single display, wherein single ones of the decoded images are displayed at a time on the single display; and

a display engine (120) for receiving the decoded parameters from the parameter buffers and providing the decoded images for display on the single display using the decoded parameters stored in the parameter buffers, wherein single ones of the decoded images are displayed at a time on the single display.

Claim 10 is directed to a circuit for displaying images on a display, said circuit comprising:

a decoder (Figure 1, 115);

a plurality of image buffers (125a) connected to the decoder and configured to store images decoded by the decoder;

a plurality of parameter buffers (125b) connected to the decoder, wherein each of the plurality of parameters buffers corresponds to a particular one of the plurality of image buffers and is and configured to store parameters associated with the image stored in the corresponding one of the plurality of image buffers;

a display engine (120) connected to the image buffers and the parameter buffers and configured to receive the decoded parameters from the parameter buffers and providing the decoded images for display using the decoded parameters stored in the parameter buffers, said display engine separate from the parameter buffers.

Claim 28 is directed to a system for providing images for display, said system comprising:

a decompression engine (Figure 1, 115) for decompressing the images and decoding parameters, thereby resulting in decompressed images;

a first frame buffer (125a) for storing a first one of the decompressed images;

a first parameter buffer (125b) for storing parameters associated with the first one of the decompressed images;

a second frame buffer (125a) for storing a second one of the decompressed images;

a second parameter buffer (125b) for storing parameters associated with the second one of the decompressed images;

a third frame buffer (125a) for storing a third one of the decompressed images;

a third parameter buffer (125b) for storing parameters associated with the third one of the decompressed images; and

a display engine (120) for providing the first decompressed image for display based on the parameters stored in the first parameter buffer, providing the second decompressed image for display based on the parameters stored in the second parameter buffer, and providing the

third decompressed image for display based on the parameters stored in the third parameter buffer on a single display, one image at a time.

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claim 1 as obvious under 35 U.S.C. 103(a) from Kono in view of Aharoni, and further in view of Washino.

Claim 10 as obvious under 35 U.S.C. 103(a) as anticipated by Kono in view of Aharoni and further in view of Washino.

Claim 28 as obvious under 35 U.S.C. 103(a) as anticipated by Kono in view of Aharoni and further in view of Washino.

## **VII. ARGUMENT: CLAIMS 1**

Claim 1 is copied below:

A system for displaying images on a single display, said system comprising:

a decoder for decoding encoded images and parameters associated with the images, thereby resulting in decoded images and decoded parameters associated with the decoded images;

a plurality of image buffers for storing the decoded images prior to display on the single display, wherein single ones of the decoded images are displayed at a time on the single display;

a plurality of parameter buffers, wherein each of the plurality of parameters buffers corresponds to a particular one of the plurality of image buffers and is for storing the decoded parameters associated with

the image stored in the corresponding one of the plurality of image buffers, prior to display on the single display, wherein single ones of the decoded images are displayed at a time on the single display; and

a display engine for receiving the decoded parameters from the parameter buffers and providing the decoded images for display on the single display using the decoded parameters stored in the parameter buffers, wherein single ones of the decoded images are displayed at a time on the single display.

Claim 1 appears to be rejected under 35 U.S.C. 103(a) as obvious from Kono, Aharoni, and Washino. It is noted that the FOA at 5 that claim 1 is rejected under 35 U.S.C. 102(e) as anticipated by Kono, in view of Aharoni, and Washino. It is believed that Examiner intended to reject the claim under 35 U.S.C. 103(a). To the extent that Examiner intended to reject under 35 U.S.C. 102(e), Appellant submits that the rejection should be reversed because all of the limitations are not disclosed in a single reference.

Assignee now respectfully submits that the rejection to claim 1 because (1) one skilled in the art would not modify Kono in view of Aharoni's "multi-client platform", and Washino's "displaying multiple images on a single display" to arrive at the invention as claimed in claim 1 reciting, "wherein single ones of the decoded images are displayed at a time on the single display"; and (2) Examiner relies on either misconstrued and overruled case law to establish the obviousness of certain limitations.



**A. The rejection to claim 1 should be reversed because the reasons for combining Kono with Aharoni, and Kono and Aharoni with Washino directly contradict each other.**

Appellant respectfully submits that one skilled in the art would not be motivated to "combine Kono system with the multi-client platform of Aharoni and provide a plurality of image buffers and associated parameters buffers of Kono with the various client service levels for Aharoni in order to *for greater distribution of decoded images of a heterogeneous network*" and then modify the combination of Kono and Aharoni with Washino "*in order to allow for multiple video outputs to a single display*". The motivation to combine Kono and Aharoni is not merely different, but contradicts the stated motivation for adding Washino.

Put another way, one skilled in the art that was motivated to allow for "greater distribution of decoded images of a heterogeneous network" would not then use a modification "in order to allow for multiple video outputs to single display". Similarly, one skilled in the art that was motivated to "allow for multiple video outputs to single display" would not use a modification for "greater distribution of decoded images of a heterogeneous network".

Accordingly, Assignee respectfully requests that the rejections to claim 1 and its dependent claims be REVERSED.

**B. Examiner's reliance on St. Regis Paper Co. v. Bemis Co. as authoritative is in error.**

Claim 1 recites, among other limitations:

a plurality of image buffers for storing the decoded images prior to display on the single display, wherein single ones of the decoded images are displayed at a time on the single display;

a plurality of parameter buffers, wherein each of the plurality of parameters buffers corresponds to a particular one of the plurality of image buffers and is for storing the decoded parameters associated with the image stored in the corresponding one of the plurality of image buffers, prior to display on the single display, wherein single ones of the decoded images are displayed at a time on the single display;

According to the Final Office Action, Kono discloses "a singly disclosed image and parameter buffer pair", while the claim language claims pluralities. The Final Office Action uses case law to "establish that the replication of the image and parameter buffer pairs from a single disclose image and parameter buffer pair as in Kono for the multi-client platform of Aharoni is the duplication of parts for a multiplied effect, St. Regis Paper Co. v. Bemis Co., Inc., 549 F.2d 833, 193 USPQ 8, 11 (7<sup>th</sup> Cir. 1977)." Final Office Action at 4.

It is first noted that the Seventh Circuit Court of Appeals is not now, nor was at the time, binding on this appeal. Prior to creation of the Court of Appeals for the Federal Circuit, it was the Court of Customs and Patent Appeals.

Additionally, in St. Regis Paper, the Court held obvious a combination of one reference taught all of the elements except "multiple layers", and a multilayered bag that had been on sale. 549 F.2d. at 838. Note that in St. Regis Paper, one of the prior arts that was combined, itself, *already included* the alleged duplication of parts.

Contrary to the FOA, St. Regis Paper does not hold that duplication of parts for multiplied effect is obvious.

The present case is distinguishable because the Kono reference has "a singly disclosed image and parameter buffer pair". Use of St. Regis Paper to bridge the gap between Kono and the claimed plurality of image buffers and plurality of parameters buffers is in error.

Finally, St. Regis Paper was based on a requirement of "synergy" for non-obviousness. 549 F.2d at 838. The requirement of "synergy" for non-obviousness has long been overruled. See, e.g., Ryko Manufacturing Co. v. Nu-Star, Inc., 950 F.2d. 714 (Fed.Cir. 1991).

Accordingly, Appellant respectfully submits the holding that the claimed invention is obvious is based on non-binding, inapplicable, and overruled caselaw.

For at least the foregoing reasons, the rejection to claim 1 and its dependent claims should be **REVERSED**.

#### VIII. ARGUMENT - CLAIM 10

Appellant incorporates section VII by reference in its entirety. Additionally, claim 10 should also be overruled for the following reasons.

Claim 10 is copied below:

A circuit for displaying images on a display, said circuit comprising:

a decoder;

a plurality of image buffers connected to the decoder and configured to store images decoded by the decoder;

a plurality of parameter buffers connected to the decoder, wherein each of the plurality of parameters buffers corresponds to a particular

one of the plurality of image buffers and is and configured to store parameters associated with the image stored in the corresponding one of the plurality of image buffers;

a display engine connected to the image buffers and the parameter buffers and configured to receive the decoded parameters from the parameter buffers and providing the decoded images for display using the decoded parameters stored in the parameter buffers, said display engine separate from the parameter buffers.

Assignee respectfully submits that the rejection to claim 10 should be reversed because Kono, Aharoni, and Washino do not teach the claimed "said display engine separate from the parameter buffers." Accordingly, the FOA does not establish a *prima facie* case of obviousness.

In the FOA, Examiner indicated that:

It is noted that the combination, as discussed by the Applicants does disclose the corresponding elements (i.e., the display engine and parameter buffers), but fails to disclose the specific arrangement (i.e., being separate) as claimed. However, the Examiner notes that such a modification has also been readily established unpatentable by the courts as being well within the purview of one of ordinary skill in the art - that is to take something that is integral as one unit and make it separate wherein the new arrangement fails [to] connote a significant and unexpected advantage to the overall invention by the separation, Nerwin v. Erlichman, 168 USPQ 177, 179 (PTO Bd. Of Int. 1969)."

FOA at 4-5.

Assignee respectfully submits that the FOA's reliance on Nerwin v. Erlichman is misplaced. It is first noted that the FOA provides no specific reasons why "said display

engine separate from the parameter buffers" would be well within the purview of one of ordinary skill in the art. Rather, the FOA appears to take the position that Nerwin establishes a *per se* rule that "to take something that is integral as one unit and make it separate".

A reading of Nerwin shows that this position is in error. Moreover, it has been consistently rejected by the Board. See Ex Parte Pennell et al., Appeal 2009-5025, Ex Parte Bozmoski, et al., Appeal 2008-0092, Ex Parte Beeler, Appeal 2002-1968, Ex Parte Geiger, Appeal 1999-0074, Ex Parte Nylung, Appeal 1997-3821, Ex Parte Gillig et al., Appeal 1998-1491, Ex Parte Morikita, Appeal 96-2640, Ex Parte Holmes, Appeal 96-3077, Ex Parte Suzuki, Ex Parte Gruden, Appeal 97-1147, and Ex Parte Horst Knoch Appeal No. 95-0072.

#### IX. ARGUMENT - CLAIM 28

Appellant incorporates the arguments of Section VII by reference. Additionally, the rejection to claim 28 should be reversed for the following reasons.

Claim 28 is copied below:

A system for providing images for display, said system comprising:

- a decompression engine for decompressing the images and decoding parameters, thereby resulting in decompressed images;

- a first frame buffer for storing a first one of the decompressed images;

- a first parameter buffer for storing parameters associated with the first one of the decompressed images;

- a second frame buffer for storing a second one of the decompressed images;

a second parameter buffer for storing parameters associated with the second one of the decompressed images;

a third frame buffer for storing a third one of the decompressed images;

a third parameter buffer for storing parameters associated with the third one of the decompressed images; and

a display engine for providing the first decompressed image for display based on the parameters stored in the first parameter buffer, providing the second decompressed image for display based on the parameters stored in the second parameter buffer, and providing the third decompressed image for display based on the parameters stored in the third parameter buffer on a single display, one image at a time.

Claim 28 recites, among other limitations, "a display engine for providing the first decompressed image from the first frame buffer for display based on the parameters stored in the first parameter buffer, providing the second decompressed image from the second frame buffer for display based on the parameters stored in the second parameter buffer, providing the third decompressed image from the third frame buffer for display based on the parameters stored in the third parameter buffer, on a single display, one image at a time".

Assignee respectfully submits that Kono, Aharoni, and Washino does not teach the foregoing. For example, in Kono, "The frame buffer 13 is divided into three areas which respectively store one picture." Col. 2, Lines 31-32. Examiner has indicated that Kono teaches "a display engine for receiving the decoded parameter from the parameters buffers and providing the decoded images for display using

the decoded parameters stored in the parameter buffers (Kono: column 3, lines 20-30) ... However, Kono fails to specifically disclose ... a corresponding plurality of parameters buffers". Office Action at 3. In contrast, Kono teaches "The display control section 15 executes the display of the picture by comprehensively analyzing the display parameter of the picture layer stored in this register and the parameters of the second layer and the parameters of the GOP layer." Col. 4, Lines 18-22.

While Examiner states that "one cannot show nonobviousness by attacking reference individually where the references are based on combination of references", Assignee reiterates that since NONE of Kono, Aharoni, or Washino teach the emphasized limitation, and accordingly, the combination Kono, Aharoni, and Washino does not teach it as well.

### **CONCLUSION**

For the foregoing reasons, claims 1-16, 18, and 27-29 are distinguishable over the prior art of record. Reversal of the Examiner's rejection and issuance of a patent on the application are therefore requested.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Account No. 13-0017.

Dated: May 20, 2010

Respectfully submitted,

/Mirut Dalal/

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## CLAIMS APPENDIX

1. A system for displaying images on a single display, said system comprising:

a decoder for decoding encoded images and parameters associated with the images, thereby resulting in decoded images and decoded parameters associated with the decoded images;

a plurality of image buffers for storing the decoded images prior to display on the single display, wherein single ones of the decoded images are displayed at a time on the single display;

a plurality of parameter buffers, wherein each of the plurality of parameters buffers corresponds to a particular one of the plurality of image buffers and is for storing the decoded parameters associated with the image stored in the corresponding one of the plurality of image buffers, prior to display on the single display, wherein single ones of the decoded images are displayed at a time on the single display; and

a display engine for receiving the decoded parameters from the parameter buffers and providing the decoded images for display on the single display using the decoded parameters stored in the parameter buffers, wherein single ones of the decoded images are displayed at a time on the single display.

2. The system of claim 1, wherein the encoded images and the parameters associated with the images form portions of data packets.

3. The system of claim 2, wherein the data packets comprise headers, wherein the headers comprise the parameters.

4. The system of claim 3, wherein the headers comprise picture layer headers.

5. The system of claim 3, wherein the headers comprise sequence layer headers.

6. The system of claim 2, wherein the data packets are associated with first headers and second headers, wherein the first headers comprise a portion of the parameters, and wherein the second headers comprise another portion of the parameters.

7. The system of claim 6, wherein the first headers comprise picture layer parameters and wherein the second headers comprise sequence layer parameters.

8. The system of claim 1, wherein the encoded images comprise compressed images.

9. The system of claim 1, wherein the parameters are encoded with a variable length code, and wherein the decoder decodes the variable length code.

10. A circuit for displaying images on a display, said circuit comprising:

a decoder;

a plurality of image buffers connected to the decoder and configured to store images decoded by the decoder;

a plurality of parameter buffers connected to the decoder, wherein each of the plurality of parameters buffers corresponds to a particular one of the plurality of image buffers and is configured to store parameters associated with the image stored in the corresponding one of the plurality of image buffers;

a display engine connected to the image buffers and the parameter buffers and configured to receive the decoded parameters from the parameter buffers and providing the decoded images for display using the decoded parameters stored in the parameter buffers, said display engine separate from the parameter buffers.

11. The circuit of claim 10, wherein the encoded images and the parameters associated with the images form portions of data packets.

12. The circuit of claim 11, wherein the data packets comprise headers, wherein the headers comprise the parameters.

13. The circuit of claim 12, wherein the headers comprise picture layer headers.

14. The circuit of claim 12, wherein the headers comprise sequence layer headers.

15. The circuit of claim 11, wherein the data packets are associated with first headers and second headers, wherein the first headers comprise a portion of the parameters, and wherein the second headers comprise another portion of the parameters.

16. The circuit of claim 15, wherein the first headers comprise picture layer parameters and wherein the second headers comprise sequence layer parameters.

17. (Cancelled)

18. The circuit of claim 10, wherein the parameters are encoded with a variable length code, and wherein the decoder decodes the variable length code.

19-26. (Cancelled).

27. The system of claim 1, wherein the decoded parameters include at least one parameters selected from a group consisting of presentation time stamp, top field first, and repeat first field.

28. A system for providing images for display, said system comprising:

- a decompression engine for decompressing the images and decoding parameters, thereby resulting in decompressed images;

- a first frame buffer for storing a first one of the decompressed images;

- a first parameter buffer for storing parameters associated with the first one of the decompressed images;

- a second frame buffer for storing a second one of the decompressed images;

- a second parameter buffer for storing parameters associated with the second one of the decompressed images;

a third frame buffer for storing a third one of the decompressed images;

a third parameter buffer for storing parameters associated with the third one of the decompressed images; and

a display engine for providing the first decompressed image for display based on the parameters stored in the first parameter buffer, providing the second decompressed image for display based on the parameters stored in the second parameter buffer, and providing the third decompressed image for display based on the parameters stored in the third parameter buffer on a single display, one image at a time.

29. The system of claim 28, wherein the parameters associated with the first image are decoded during decompression of the first compressed image, wherein the parameters associated with the second image are decoded during decompression of the second compressed image, and wherein the parameters associated with the third image are decoded during decompression of the third compressed image.

## EVIDENCE APPENDIX

There are no pages in this appendix

## RELATED PROCEEDINGS APPENDIX

There are no pages in this Appendix.